Date Searched: 6/17/2004 Databases Searched: USPAT, USPGPUB Plurals: ON Terms Searched: L1 (((driver or buffer or repeater) same (((surround\$3 or around or encircl\$3 or circl\$3 or circl\$3 \$2) or (veritcal\$3 same horizontal\$3)) same ((peripher\$3 or boundary or edge) same chip)) and ((driver or buffer or repeater) same (driv\$3 or output\$4) same (display or crt or monitor))) and (257/59,72.ccls. or 326/561.ccls. or 345/\$.ccls. or 348/\$.ccls. or 349/\$.ccls. or 716/\$.ccls.) and @pd>20040326 Results: 2 hits L2 ((chip or on-chip) same ((driver or buffer or repeater) same (memory or ram or register or rom or eprom or storage or sram or sdram)) same ((driver or buffer or repeater) same (anode or cathode))) and (257/59,72.ccls. or 326/561.ccls. or 345/\$.ccls. or 348/\$.ccls. or 349/\$.ccls. or 716/\$.ccls.) and @pd>20040326 Results: 4 hits Date Searched: 3/6/2004 Databases Searched: USPAT, USPGPUB Plurals: ON Terms Searched: (((driver or buffer or repeater) same (((surround\$3 or around or encircl\$3 or circl\$3 or circular \$2) or (veritcal\$3 same horizontal\$3)) same ((peripher\$3 or boundary or edge) same chip)) and ((driver or buffer or repeater) same (driv\$3 or output\$4) same (display or crt or monitor))) and (257/59,72.ccls. or 326/561.ccls. or 345/\$.ccls. or 348/\$.ccls. or 349/\$.ccls. or 716/\$.ccls.) and @pd>20040114 Results: 1 hit ((chip or on-chip) same ((driver or buffer or repeater) same (memory or ram or register or rom or eprom or storage or sram or sdram)) same ((driver or buffer or repeater) same (anode or cathode))) and (257/59,72.ccls. or 326/561.ccls. or 345/\$.ccls. or 348/\$.ccls. or 349/\$.ccls. or 716/\$.ccls.) and @pd>20040114 Results: 0 hit Date Searched: 1/14/2004 Databases Searched: USPAT, USPGPUB Plurals: ON Terms Searched: L1 (peripher\$3 or boundary or edge) same chip L2 ((surround\$3 or around or encircl\$3 or circl\$3 or circular\$2) or (veritcal\$3 same horizontal\$3)) same 1 L3 (driver or buffer or repeater) same 2 L4 (driver or buffer or repeater) same (driv\$3 or output\$4) same (display or crt or monitor) L5 3 and 4 Results: 157 hits 257/59,72.ccls. or 326/561.ccls. or 345/\$.ccls. or 348/\$.ccls. or 349/\$.ccls. or 716/\$.ccls. 5 and 6 L7 Results: 37 hits ((chip or on-chip) same ((driver or buffer or repeater) same (memory or ram or register or rom or eprom or storage or sram or sdram)) same ((driver or buffer or repeater) same (anode or cathode))) and (257/59,72.ccls. or 326/561.ccls. or 345/\$.ccls. or 348/\$.ccls. or 349/\$.ccls. or 716/\$.ccls.) and @pd>20030723

Results: 1 hit

US 5754171 A USPAT Stoller, Ray A. 345/205 US 6550047 B1 USPAT Becker, Scott T. 716/8

US 5699073 A USPAT Lebby, Michael S. et al. 345/82 US 5680191 A USPAT Voisin, Paul A. et al. 349/150

Date Searched: 7/23/2003

Databases Searched: USPAT, USPGPUB

Plurals: ON Terms Searched:

L1 (driver or buffer or repeater) same (memory or ram or register or rom or eprom or storage or

sram or sdram)

L2 (driver or buffer or repeater) same (anode or cathode)

L3 1 and 2 Results: 3704

L4 (chip or on-chip) same 1 same 2

Results: 101

L5 257/59,72.ccls. or 326/561.ccls. or 345/\$.ccls. or 348/\$.ccls. or 349/\$.ccls.

or 716/\$.ccls. L6 4 and 5 Results: 49 hits

L7 bit same (group\$3 or cluster\$3 or partition\$3 or set)
L8 7 same (peripher\$3 or boundary or edge) same chip
L9 (circl\$3 or circular\$2 or round\$3 or encircl\$3) same 7

L10 8 and 9
Results: 5159 hits
L11 5 and 10
Results: 496 hits

L12 (circl\$3 or circular\$2 or round\$3 or encircl\$3) same 8

Results: 43 hits

L13 (circl\$3 or circular\$2 or round\$3 or encircl\$3) near5 shape

L14 8 and 13 and 5

Results: 5 hits

L15 8 and 716/\$,ccls.

Results: 20 hits

US 4833620 A USPAT Takahashi, Hitoshi 716/4

US 4447881 A USPAT Brantingham, George L. et al. 716/17

US 6008821 A USPAT Bright, Arthur Aaron et al. 345/504

Date Searched: 7/21/2003

Databases Searched: USPAT, USPGPUB

Plurals: ON
Terms Searched:
L1 716/\$.ccls.

L2 (driver or buffer or repeater) same (memory or ram or register or rom or eprom or storage)

L3 2 same (equal\$2 or equidistance or symmetr\$6 or center\$3 or centeral\$2 or "same" or equival\$4)

L4 1 and 2
Results: 260 hits
L5 4 and dummy

Results: 11 hits

L6 bit same (driver or buffer or repeater) L7 4 and 6 Results: 113 hits L8 716/\$.ccls. and (((driver or buffer or repeater) same (memory or ram or register or rom or eprom or storage)) same (identical\$2)) L9 8 and 6 Results: 17 hits L10 9 not 4 Results: 4 hits L11 (8 or 4) and cathode and anode Results: 5 hits L9 (((driver or buffer or repeater) same (memory or ram or register or rom or eprom or storage or sram or sdram or dram)) same (equal\$2 or equidistance or symmetr\$6 or center\$3 or centeral\$2 or "same" or equival\$4 or middle)) (driver or buffer or repeater) same anode same cathode L10 L11 257/59,72.ccls. or 326/561.ccls. or 345/\$.ccls. or 348/\$.ccls. or 349/\$.ccls. L12 9 and 10 and 11 Results: 96 hits US 6256604 B1 USPAT Yabe, Tomoaki et al. 703/14 USPAT Udo, Shinya et al. US 6304241 B1 345/96 US 4214269 A USPAT Parker, Edward J. et al. 348/442 US 5757654 A USPAT Appel, William Dale 716/1 US 5488583 A USPAT Ong, Adrian E. et al. 365/201 US 6470475 B2 USPAT Dubey, Prashant 716/1 Databases Searched: EPO, JPO, IBM TDB, Derwent Plurals: ON Terms Searched: L1 (((driver or buffer or repeater) same (memory or ram or register or rom or eprom or storage)) same (equal\$2 or equidistance or symmetr\$6 or center\$3 or centeral\$2 or "same" or equival\$4 or identical \$2)) L2 bit same (driver or buffer or repeater) L3 1 and 2 Results: 2750 hits g06f017/50.ipc. and 3 L4 Results: 0 hit L5 g11b\$.ipc. and 3 Results: 46 hits (((driver or buffer or repeater) same (memory or ram or register or rom or eprom or storage)) same (center\$3 or centeral\$2 or middle)) L7 6 and chip Results: 85 hits 3 and cathode and anode L8 Results: 6 hits ((bit same (group\$3 or cluster\$3 or partition\$3 or set)) same (peripher\$3 or boundary or edge) same chip Results: 207 hits 9 and anode and cathode L10 Results: 1 hit L11 ((bit near5 (group\$3 or cluster\$3 or partition\$3 or set)) same (peripher\$3 or boundary or edge)

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Results: 68 hits
JP 10256512 A
                     JPO
                            KAJITANI, KAZUHIKO et al.
JP 07211075 A
                     JРO
                            AKIYAMA, NOBORU et al.
JP 02183558 A
                     JРО
                            HIROKI, MASANORI
JP 02078268 A A, ZZ
                     JРО
                            KUBODERA, MASAAKI et al.
JP 02005292 A
                     JPO
                            OHATA, KENICHI et al.
JP 63209141 A
                     JPO
                            URASAKI, TADAAKI
JP 63027055 A
                     JPO
                            NAKAJIMA, CHIEKO
                            KITSUKAWA, GORO et al.
WO 9858410 A1
                     EPO
JP 11154708 A
                     JРО
                            SERA, YOSHIAKI
JP 11068059 A
                     JРО
                            FUJISAWA, HIROKI
JP 11054726 A
                     JPO
                            SUZUKI, TSUYUKI et al.
JP 04144276 A
                     JPO
                            KIKUTA, SHIGERU et al.
NN8706330
                     IBM TDB
                     DERWENT
JP 11086531 A
EP 433087 A2 A2, A3 EPO
                            COLLINS, WILLIAM DAVID et al.
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NB8909290 IBM TDB

same chip

Database Searched: IEE/IEEE Xplore

Terms Searched: (driver or buffer or repeater) and (memory or ram or register or rom or eprom or storage) and (equal* or equidistance or symmetr* or center* or centeral* or "same" or equival* or middle or identical*) and bit

Results: Your search matched 117 of 950522 documents.

Terms Searched: (driver or buffer or repeater) and (memory or ram or register or rom or eprom or storage) and (equal* or equidistance or symmetr* or center* or centeral* or "same" or equival* or middle or identical*) and bit and chip

Results: Your search matched 38 of 950522 documents.

Terms Searched: (driver or buffer or repeater) and (memory or ram or register or rom or eprom or storage) and (equal* or equidistance or symmetr* or center* or centeral* or "same" or equival* or middle or identical*) and bit and anode and cathode

Results: Your search matched [0] of [950522] documents.

Terms Searched: ((bit <near/5> (group* or cluster* or partition* or set)) and (peripher* or boundary or edge) and chip

)

Results: Your search matched 5 of 955082 documents.

Terms Searched: (driver or buffer or repeater) and (memory or ram or register or rom or eprom or storage or dram or sram or sdram) and (anode or cathode)

Results: Your search matched 3 of 955082 documents.